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ABSTRACT

This document contains three papers from a symposium on enhancing individual readiness through human resource development (HRD). "Secondary School Administrator's Perception of Enhancing Self-Worth through Service" (Thomas Li-Ping Tang, Emily James Weatherford) presents results of a study to examine secondary school administrators' endorsement of the Service Ethic that show the 10-item Service Ethic Scale measures a very specific construct and has an excellent reliability measure. "Acceptable vs. Marginal Police Officers' Psychological Ratings: A Longitudinal Comparison of Job Performance" (Gwendolyn V. Brown, Douglas H. Smith) reports a study that used a causal-comparative research design to determine whether there were significant statistical differences in specific job performance variables between 162 candidates who received "acceptable" psychological ratings and 71 who received "marginal" psychological ratings, all of whom were hired by a police department. It shows results of multivariate analyses of variance, t-tests, and chi-square procedures as applicable that indicate no significant differences between the two groups on any of the job performance variables. "An Analysis of the Phase Model of Burnout" (Thomas A. Myers) is a partial literature review that describes the model, including the three subdomains and phases; the power of the model in relation to other variables; and how it can be used in HRD. (YLB)

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29 Enhancing Individual Readiness

Chair: Donna H. Redmann, Louisiana State University

Secondary School Administrator's Perception of Enhancing Self-Worth through Service

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Acceptable Vs. Marginal Police Officers' Psychological Ratings: a Longitudinal Comparison of Job Performance

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An Analysis of the Phase Model of Burnout

Thomas A. Myers, Georgia State University

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Secondary School Administrator's Perception of Enhancing Self-Worth Through Service

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Ninety-two secondary school administrators (principals) completed a survey. Results of exploratory factor analysis showed that the 10-item Service Ethic Scale (SES) had one factor, explained 63.2 percent of the variance, and showed excellent reliability (Cronbach's alpha = .92). The Service Ethic Scale was significantly correlated with the Protestant Work Ethic and the development of ethical values and was not related to participants' sex, age, job tenure, and location of their schools (rural vs. urban).

The practical importance of helping others, providing services to others, and performing organizational citizenship behavior (OCB) is that these behaviors improve efficiency and effectiveness in organizations and in the society (Organ, 1988). The ideas related to "the desire to help others" are important to employers and employees in both public and private sectors.

The major purpose of the present study was to examine the secondary school administrators' (principals) perception of enhancing self-worth through service which was measured by a 10-item, 5-point Service Ethic Scale (SES) specifically developed for this study. Further, we investigated the relationships between the Service Ethic Scale and personality and demographic variables. Service Ethic can be defined as an individual's positive outlook and desire to provide services to others (help others) which may lead to an individual's enhanced self-worth and self-esteem. The notion of helping others has its roots in the history of education (i.e., service learning) and also in organizational behavior (i.e., organizational citizenship behavior) which will be reviewed very briefly below.

People in the teaching profession, such as teachers, educators, coaches, trainers, professors, and managers in the field of human resource development may have a strong sense of helping others when they perform their job duties and responsibilities and may gain a great deal of intrinsic reward and satisfaction out this profession. Therefore, it appears that the notion of service ethic is important for researchers and practitioners in the field of human resource development. Relevant research will be reviewed very briefly below.

Service Learning

In 1918, the NEA's Commission of the Reorganization of Secondary Education identified the spirit of service (i.e., the desire to help others) as one of the most critical areas of education for developing citizenship and ethical character (Sergiovanni, 1991). In the 1930s, the concept of service learning played a major role in President Franklin Roosevelt's New Deal.

During that period, community service was introduced in the form of the Civilian Conservation Corps (CCC). This structure allowed young Americans, previously unemployed, to become active in projects to better their communities. The Junior League, Rotary Club, and Lion's Club are also examples of service organizations (Sandler & Vandegrift, 1993).

During the 1960s, new service programs came into existence: e.g., the Peace Corps, Volunteers in Service to America (VISTA), and Teacher Corps. President Kennedy's 1961 inaugural address challenged Americans to ask what they could do for their country. With the

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changes in the last two decades, national interest shifted toward community service and the work ethic as a way to bring communities across America together in an attempt to solve some of the existing social ills.

Due to American's interests in this, Congress passed the National and Community Service Act of 1990 which encouraged the development of a "volunteer ethic" among the youth of America. This Act was designed to develop more youth programs during the summer and to fund community service projects of merit in individual states.

Senator Edward Kennedy has emphasized the power of community service: "By learning that they can make a difference in the lives of others, students discover their power to control their own lives" (Kennedy, 1991, p. 772). The national education strategy referred to as America 2000 includes an objective that "all students will be involved in activities that promote and demonstrate good citizenship, community service, and personal responsibility" (Sandler & Vandegrift, 1993, p. 10).

Organizational Citizenship Behavior (OCB)

For the past several decades, researchers have examined prosocial organizational behavior (Brief & Motowidlo, 1986), extra-role behavior (Katz & Kahn, 1978), and organizational citizenship behavior (OCB) (Organ & Ryan, 1995; Smith, Organ, & Near, 1983; Tang & Ibrahim, 1993). OCB "represents individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization" (Organ, 1988, p. 4). According to Smith et al. (1983), these behaviors "lubricate the social machinery of the organization", "provide the flexibility needed to work through many unforeseen contingencies", and help employees in an organization "cope with the otherwise awesome condition of interdependence on each other" (p. 654).

There are two distinct types of OCB: One is called Altruism which emerges as "a class of helping behaviors aimed directly at specific persons". The other is named Generalized Compliance which is defined by "a more impersonal sort of conscientiousness, more of a 'good soldier' or 'good citizen' syndrome of doing things that are 'right and proper' but for the sake of the system rather than for specific persons" (p. 662).

Altruism is related to activities that are beyond the call of their duties, whereas Compliance deals with activities that are "right and proper". OCB and helping behaviors hold great "promise for organizational behavior research" (Schnake, 1991, p. 735).

Service Ethic as Related to Self-Esteem and Higher-Order Needs

Self-Esteem Self-esteem (SE) is "a global evaluation of the self" (Baumeister & Tice, 1985, p. 450) or a sense of worth or value (Rosenberg, 1965). People will develop attitudes and behave in ways that will maintain their level of self-esteem.

High self-esteem individuals (high SEs) have more favorable efficacy beliefs (Brockner, 1988), like the difficult task after positive feedback (Tang & Sarsfield-Baldwin, 1991), set high goals, have high certainty, good performance, and enjoy challenging and difficult tasks (Tang & Reynolds, 1993) than low SEs. Krebs (1970) suggested that extraversion is related to prosocial behavior, whereas neuroticism is negatively related to such behavior. Smith et al. further argued that people with a high level of neuroticism probably do not have the emotional stamina to concern themselves with others' problems therefore they may not want to help others. Pierce, Gardner, Cummings, and Dunham (1989) found that employees with a high level of organization-based self-esteem (OBSE) tend to be better organizational citizens. In this study, we examined the notion that services to others will enhance their feeling of self-worth and self-esteem.

Higher-Order Needs Among the content theories of motivation, Maslow's (1954) theory of needs hierarchy remains very popular among managers and students of organizational behavior.

Maslow's theory does provide an attractive and intuitively acceptable perspective to writers during the "human relations movement" period and still has a commonsense appeal to managers in our society today.

It is plausible that helping others may satisfy many of Maslow's higher-order needs (social, self-esteem, and self-actualization needs). In the present study, the Service Ethic Scale (SES) was developed based on suggestions in the literature (Tang & Ibrahim, 1994; Porter, 1961). Attitudes will predict behavior effectively only when there is high correspondence between the attitude object and the behavioral option (Ajzen & Fishbein, 1977; Tang & Baumeister, 1984). Since the SES is a specific work-related attitude, we believe that it will be related to another work-related personality variable, the endorsement of the Protestant Work Ethic.

The Protestant Work Ethic

The principal aspects of the Protestant Work Ethic (PWE) are hard-working, asceticism, and industriousness (Furnham, 1989; Weber, 1958). High Protestant Work Ethic subjects (PWEs) spent more time on a task and produced greater output (Merrens & Garrett, 1975), worked longer hours on their study and less time on leisure (Poulton & Ng, 1988) and viewed their commuting time as work time, and engaged in work-related activities (Greenberg, 1978) than low Protestant Work Ethic individuals.

Further, "Altruism might be interpreted as part of the Protestant Work Ethic syndrome" (Smith et al., 1983, p. 662). However, PWE was not investigated in their 1983 study. Only indirect evidence concerning the relationship between PWE and helping behavior was provided in the literature.

Helping others is probably the best way for all of the employees to achieve their destination, based on the norm of reciprocity and social exchange (Konovsky & Pugh, 1994). Based on these cultural values, it is predicted that PWE will have a strong relationship with the Service Ethic Scale.

Ethical Values

For the past two decades, we have witnessed heightened public concern about the failure of America's higher institutions of learning in preparing ethically responsible future leaders of business and government. In a 1983 Gallup poll, only 20% of the public expressed "a great deal of confidence" in big business. As a result of the poor public perception, codes of ethics, rare 20 years ago, are now commonplace among America's large corporations. Moreover, study of business ethics has become an integral part of many business schools' curriculums (Kumar, 1995).

It was also the interests of this study to see whether secondary school administrators in Louisiana would favor ethical values and ethics education. The teaching of an ethical decision-making framework to students as a means of helping them make better choices when faced with dilemmas would hopefully better prepare students for real-life situations in the workplace. It is plausible that Service Ethic will be positively correlated with the ethical values.

Method

Participants A total of 150 participants was randomly selected from 339 secondary administrators (principals) identified in the 1994-1995 Louisiana Directory of Schools. Superintendents from all school districts in the state of Louisiana were contacted for permission to survey administrators. Administrators' participation in this research was completely voluntary and their confidentiality was protected by answering the questionnaire anonymously. Participants received an introductory letter, a short survey questionnaire, a pre-addressed,

stamped return envelope, and a stamped postcard (to indicate whether they would like to participate in and to receive the results of the study).

A total of 108 administrators responded to the survey. Six individuals did not wish to participate. Usable surveys were obtained from 92 administrators (27% of the population). The response rate was 61.3%. In this sample, there were 77 males and 15 females. In terms of the location of their schools, 17 were from urban areas, while 75 were from rural areas.

Measures Participants' demographic variables such as sex, age, number of years in present position (job tenure), and location of the school (urban vs. rural) were obtained. A 5-point Likert scale with disagree strongly (1), neutral (3), and agree strongly (5) as anchors was used for all other measures. A 19-item scale developed by Mirels and Garrett (1971) was employed to measure the endorsement of the Protestant Work Ethic (PWE). Items 9, 13, and 15 were reverse scored and the total score was calculated. The 5-item Ethical Values Scale measures participants' support of ethics/values education in secondary schools. The items are listed as follows: In-class activities to develop ethical decision-making skills and citizenship would receive my support. I openly encourage the implementation of class activities that help develop the ethical character of our students. In-class service projects (doing for others) that encourage citizenship and build ethical character would receive my support. Ethics/values education can be included in existing classes at the secondary level. Ethics/values education should be included in the secondary school curriculum.

Finally, administrators were asked to rate the Service Ethic Scale using the 5-point scale only if they have participated in volunteer work or community services. The 10 items are presented in Table 1. A total score was calculated for Ethical Values and the Service Ethic Scale.

Results

An exploratory factor analysis was employed to identify the major factor(s) of the 10-item Service Ethic Scale based on data collected from these 92 administrators. The results showed a one-factor solution for the Service Ethic Scale. Table 1 shows the factor loadings of these 10 items. These 10 items explained 63.2% of the variance and had an excellent reliability measure (the Cronbach's alpha = .92). Thus, it appears that all these items were measuring a very specific construct.

Table 2 shows the mean, standard deviation, the nomological network of the Service Ethic Scale, and the Cronbach's alpha of measures. The Service Ethic Scale (SES) was significant correlated with the endorsement of the Protestant Work Ethic (PWE) and Ethical Values (EV). The Protestant Work Ethic was also significantly correlated with Ethical Values. It is also interesting to note that the Service Ethic Scale was not associated with any of the demographic variables.

Results of multivariate analyses of variance (MANOVAs) showed that there were no significant differences between males and females regarding their age, tenure, PWE, EV, and SES ($F(5, 85) = 1.32$, $p = .27$, Wilks' lambda = .928). No differences between administrators from rural areas and those from urban areas were found for these same variables ($F(5, 85) = 1.17$, $p = .33$, Wilks' lambda = .936).

Finally, sex, age, tenure, location, PWE, and EV were used to predict the participants' SES scores using a step-wise multiple regression. The results showed that only PWE was a good predictor of SES (R square change = .17, F change = 18.31, $p = .0000$).

Discussion

The major purpose of the present study was to examine secondary school administrators' endorsement of the Service Ethic. Our results show that the 10-item Service Ethic Scale measures a very specific construct and has an excellent reliability measure. This scale is significantly correlated with the endorsement of the Protestant Work Ethic. Those who believe

Table 1. Factor Analysis

Item	Factor Loading
1. Service to others gives me an opportunity to give help to other people.	.86
2. Service to others is honorable.	.86
3. Service to others gives me a feeling of worthwhile accomplishment.	.86
4. Service to others gives me a feeling of self-fulfillment.	.86
5. Service to others provides an opportunity for personal growth and development.	.83
6. Service to others increases my self-esteem.	.82
7. I feel I am a better person when I help others.	.80
8. Service to others makes me feel that I am an important part of the community.	.75
9. Service to others provides an opportunity to develop close friendships.	.72
10. Service to others gives me a feeling of prestige and I gain respect in the eyes of others.	.55
Explained variance = 63.2%	
Cronbach's alpha = .92	

Table 2. Mean, Standard Deviation, Correlations, and Cronbach's Alpha of Major Variables

Variables	M	SD	1	2	3	4	5	6	7
1. Sex				19	21*	06	08	-01	-05
2. Age	49.09	5.29			34**	09	03	12	-10
3. Tenure	7.92	6.67				-13	-02	03	00
4. Location							-10	07	-11
5. PWE	65.16	9.39						30**	41**
6. EV	19.86	3.44							29**
7. SES	43.36	5.82							
Cronbach's alpha							80	84	92

Note. $N = 92$. Sex: Female = 0, Male = 1; Tenure was expressed in years. Location: Rural = 1, Urban = 2. PWE = Protestant Work Ethic. EV = Ethical Values. SES = Service Ethic Scale. All decimals have been omitted for correlations. $^{*}p < .05$, $^{**}p < .01$.

that providing services to others will enhance their self-worth are also hard-working individuals. Thus, the Service Ethic Scale has captured the positive, uplifting feelings related to "volunteer ethic" or willingness to offer help to others.

Providing services to others and helping other people call for a lot of work and effort. Thus, only those who endorse the Work Ethic will be willing to exert their effort to achieve their service goals. Actor Paul Newman stated: "Helping is its own reward, and everyone should be encouraged to try it. It's surprising how it just feels right. Helping is human, that's all. It's part of human nature. It's the best part of human nature" (Newman, 1994, p. 4). Helping others will enhance one's own self-worth and self-esteem.

It is also possible that those who score high on the Service Ethic Scale will actually perform more services to others and display organizational citizenship behavior in organizations than those who score low. In the present study, we only examined few personality variables and no behavior measures were examined.

In the literature, Blood (1969) showed that adherence to pro-Protestant Ethic was positively related to job satisfaction. Belief in the Protestant Ethic was related to the importance of productivity and effort. Further, those who believe that money is a representation of their achievement tend to have lower satisfaction with work, pay, promotion, supervision, and coworker and have low life satisfaction in general (Tang, 1992, 1993). Thereby, people's attitudes toward money may be perceived as their "frame of reference" in which they examine their everyday life and may also play an important role in their job satisfaction. On the basis of the aforementioned studies and the results of the present paper, it stands to reason that public employees who have high endorsement of the Service Ethic may show a high level of Work Ethic endorsement which, in turn, may lead to a high level of job satisfaction.

Research suggested that students about to enter the nonprofit sector tend to value economic wealth to a lesser degree than did entrants to the profit sector (Rawls, Ulrich, & Nelson, 1975). However, several studies in the literature suggest that public managers experience significantly lower level of satisfaction than do their counterparts in business (Perry & Porter, 1982).

Employees and managers in the public or nonprofit sector (primarily government) provide services to citizens and people in the community. It is reasonable to believe that these workers' job satisfaction and performance levels (services) will be somewhat related to their endorsement of the Service Ethic identified in the present study.

As we mentioned earlier that people in the teaching profession, such as teachers, educators, coaches, trainers, professors, and managers in the field of human resource development may have a strong sense of helping others when they perform their job duties and responsibilities and may gain a great deal of intrinsic reward and satisfaction out this profession. We believe that the notion of service ethic is important for researchers and practitioners in the field of human resource development. It is also possible that teachers, professors, and educators may use the Service Ethic Scale as a possible selection tool to identify students who have high scores to enter the field of human resource development.

The results of the present study may provide the key information concerning employees' motivation and satisfaction to work in the service area. More research is needed to fill in the void in this area. Future researchers may want to expand the present model and investigate the nomological network of the Service Ethic Scale by using different variables, such as their endorsement of the Money Ethic (Tang, 1992, 1993), job satisfaction, and other objective, measurable, behavior indicators to further establish the validity and reliability of this scale.

References

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*, 888-912.

Baumeister, R. F., & Tice, D. M. (1985). Self-esteem and responses to success and failure: Subsequent performance and intrinsic motivation. *Journal of Personality, 53* (3), 450-467.

Blood, M. (1969). Work values and job satisfaction. *Journal of Applied Psychology, 53*, 456-459.

Brief, A. P., & Motowidle, S. J. (1986). Prosocial organizational behavior. *Academy of Management Review, 11*, 710-725.

Brockner, J. (1988). *Self-esteem at work: Research, theory, and practice*. Lexington, MA: Lexington Books.

Furnham, A. (1989). *The Protestant work ethic: The psychology of work beliefs and values*. London: Routledge.

Greenberg, J. (1978). Protestant ethic endorsement and attitudes toward commuting to work among mass transit riders. *Journal of Applied Psychology, 63*, 755-758.

Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations*. New York: John Wiley & Sons.

Kennedy, E. M. (1991). National service and education for citizenship. *Phi Delta Kappan, 72* (10), 771-773.

Konovsky, M. A., & Pugh, S. D. (1994). Citizenship behavior and social exchange. *Academy of Management Journal, 37*, 656-669.

Krebs, D. L. (1970). Altruism--an examination of the concept and a review of the literature. *Psychological Bulletin, 73*, 258-302.

Kumar, K. (1995). Ethical orientations of future American executives: What the value profiles of business school students portend. *SAM Advanced Management Journal, 60* (4), 32-36, 47.

Maslow, A. H. (1954). *Motivation and personality*. New York: Harper.

Merrens, M., & Garrett, J. (1975). The Protestant ethic scale as a predictor of repetitive work performance. *Journal of Applied Psychology, 60*, 125-127.

Mirels, H., & Garrett, J. (1971). The Protestant ethic as a personality variable. *Journal of Consulting and Clinical Psychology, 36*, 40-44.

Newman, P. (October 14-15, 1994). A call to action. *USA Weekend*, p. 4.

Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*, 775-802.

Perry, J. L., & Porter, L. W. (1982). Factors affecting the context for motivation in public organizations. *Academic of Management Review, 7*, 89-98.

Pierce, J. L., Gardner, D. G., Cummings, L. L., & Dunham, R. B. (1989). Organization-based self-esteem: Construct definition, measurement, and validation. *Academy of Management Journal, 32* (3), 622-648.

Porter, L. W. (1961). A study of perceived need satisfactions in bottom and middle management jobs. *Journal of Applied Psychology, 45*, 1-10.

Poulton, R. G., & Ng, S. H. (1988). Relationships between Protestant work ethic and work effort in a field setting. *Applied Psychology: An International Review, 37* (3), 227-233.

Rawls, J. R., Ulrich, R. A., & Nelson, O. T. (1975). A comparison of managers entering or reentering the profit and nonprofit sectors. *Academy of Management Journal, 18*, 616-622.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Sandler, L., & Vandegrift, J. S. (1993). *Community service and service learning in Arizona: 1993 evaluation report for Arizona's Serve-America*. Tempe, AZ: Arizona State University, Morrison Institute for Public Policy. (ERIC Document Reproduction Service No. ED 359 661).

Schnake, M. (1991). Organizational citizenship: A review, proposed model, and research agenda. *Human Relations, 44*, 735-759.

Sergiovanni, T. J. (1991). *The principalship: A reflective practice perspective*. Needham Heights, MA: Allyn & Bacon.

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology, 68*, 653-663.

Tang, T. L. P. (1992). The meaning of money revisited. *Journal of Organizational Behavior, 13*, 197-202.

Tang, T. L. P. (1993). The meaning of money: Extension and exploration of the Money Ethic Scale in a sample of University students in Taiwan. *Journal of Organizational Behavior, 14*, 93-99.

Tang, T. L. P., & Baumeister, R. F. (1984). Effects of personal values, perceived surveillance, and task labels on task preference: The ideology of turning play into work. *Journal of Applied Psychology, 69* (1), 99-105.

Tang, T. L. P., & Ibrahim, A. H. S. (1993, November). *Antecedents of organizational citizenship behavior revisited: Workers in the Middle East and the United States.* Paper Presented at the Southern Management Association, Atlanta, GA.

Tang, T. L. P., & Reynolds, D. B. (1993). Self-esteem and perceived goal difficulty as related to goal setting, certainty, task performance, and attributions. *Human Resource Development Quarterly, 4*, 153-170.

Tang, T. L. P., & Sarsfield-Baldwin, L. (1991). The effects of self-esteem, task label, and performance feedback on task liking and intrinsic motivation. *Journal of Social Psychology, 131* (4), 567-572.

Weber, M. (1958). *The Protestant ethic and the spirit of capitalism* (T. Parsons, translator). New York: Scribner's. (Original work published 1904-1905).

Acceptable Vs. Marginal Police Officers' Psychological Ratings: a Longitudinal Comparison of Job Performance

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During a three year period, a police department hired 162 candidates who received "acceptable" psychological ratings and 71 candidates who received "marginal" psychological ratings. A causal-comparative research design was used to determine if there were significant statistical differences in specific job performance variables between these officers. The results of multivariate analyses of variance, t-tests, and chi-square procedures as applicable, showed no significant differences between the two groups on any of the job performance variables.

When police officers commit acts that grossly violate the public trust, the results are usually a media frenzy which then prompts police officials to review their background screening process, especially the results from the officers' preemployment psychological exam. One major concern of police departments is to successfully recruit, screen and hire police candidates who will be successful not only during their academy training and probationary period, but throughout a tenured law enforcement career.

In 1987, a major metropolitan police department began using an in-depth preemployment psychological exam as part of the background screening process in its selection of police officers. During the preceding years, there had been many incidents involving police officers (e.g., arrests for drug possession and usage, soliciting prostitutes, thefts) which indicated an urgent need to improve the quality of the personnel selection process. The purpose of the psychological evaluation was to screen out police applicants who possessed mental conditions or psychological characteristics that made them a high risk for the position of police officer (Valle, Axelberd & Capp, 1986). Based on the department's preemployment psychological screening contract, examples of conditions and characteristics tested for included: psychosis, lack of impulse control, high degree of immaturity, poor judgment capabilities, character disorders, tendencies to be very passive or aggressive in critical situations, high anxiety levels or inability to cope with the stress of police work, very poor socialization skills, an inability to interact with the public, and racial or ethnic prejudice.

Additionally, the psychological evaluation would identify those characteristics in individuals qualifying them as good candidates. These included: good academic potential, capacity to handle responsibility, judgment during crisis situations, good socialization skills, flexibility, good self-concept, and an ability to manage stress.

During the period 1987-90, police candidates were rated as "unacceptable," "acceptable" or "marginal" on their preemployment psychological exam. The psychological instruments used to determine these three ratings were the Minnesota Multiphasic Personality Inventory (MMPI), the California Personality Inventory (CPI), the Otis-Lennon School Ability Test (OLSAT), the Rorschach Psychodiagnostic Inkblot, the Law Enforcement Background Questionnaire, and a clinical interview. According to the police department's guidelines, a rating of "unacceptable" meant the applicant had failed to meet minimum standards and was considered a high risk for the police profession. These applicants were automatically disqualified from further processing. An applicant rated as "acceptable" had met minimum standards and either had none or limited areas of concern. These applicants automatically advanced to the next stage of the process unless other disqualifying data surfaced. An applicant rated as "marginal" had met minimum standards, but possessed multiple or major areas of concern which warranted thorough

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investigation during the background process. These applicants were hired if the background process could not substantiate the areas of concern, or if no other disqualifying information was found.

This study was conducted to compare the job performance of police candidates who were hired with "acceptable" and "marginal" psychological ratings to determine if significant differences existed between the two groups on several job performance variables.

Review of the Literature

A review of the literature shows that most police departments rely upon psychological testing to predict how well applicants will perform in the area of citizen complaints or commendations, automobile accidents, tardiness, sick leave, academy performance, completion of probation, and other potential problematic behaviors. Inwald (1985) has indicated that while some psychological tests are now being developed and validated specifically for law enforcement screening (including the Inwald Personality Inventory), none are 100% effective in predicting which officers will eventually have problems on the job. She further asserted that, "while psychologists can identify most candidates suffering from psychoses or other severe character disorders that may affect functioning on any job, they cannot (and may never be able to) do more than increase the odds of screening out poor performers" (p. 370).

In an effort to address the problem of distinguishing successful and unsuccessful police applicants, and predicting their success or failure, Saxe and Reiser (1976) randomly selected officers who had previously taken the psychological exam with the Los Angeles Police Department. They compared the MMPI scores of 100 Los Angeles police officers who had stayed in the force for a minimum of three years (successful group), 100 who had been accepted into the force but left within three years (attrition group), and 100 who had applied to the force but were rejected due to failing the psychological exam (rejected group). Results showed that the successful group differed significantly from the rejected group on six of 13 scales; the successful group was significantly higher on two scales; and the rejected group was significantly higher on four scales. Additionally, the successful group differed significantly from the attrition group on five dimensions; the successful group was significantly higher on four scales; and the attrition group was significantly higher on one scale. They summarized that although significant differences were found, these differences were in the normal range and too small in terms of traditional clinical standard scores, and, therefore, not meaningful in making a clinical differentiation between successful and unsuccessful police applicants.

Gettinger (1981) reported on the hiring practices of two police departments, the Los Angeles city police (LAPD) and the Los Angeles County Sheriff (LASD), both comparable in size, salaries, and levels of professionalism. This study showed that the LAPD rejects about 50% of all candidates on psychological grounds, while the LASD turns down about 10%. The LASD's screening process is reportedly less rigorous than the LAPD's. However, the LASD's psychologist indicated that when he conducted 5-year and 10-year follow-up reports on officers in trouble or doing especially well, he rarely found that the initial testing indicated that they would perform especially poorly or especially well, intimating that the high rejection rate by the LAPD was not necessarily warranted.

The Los Angeles Sheriff Department psychologist's conclusion was supported by Lester, Babcock, Cassisi, and Burnetta' (1980). They compared the performance of applicants hired by a municipal police department after recommendations by the psychologist: 43 of 50 were recommended by the psychologist and hired, 23 of 28 were recommended with reservations and hired, and 17 of 41 were recommended for rejection but hired. The performance of the 17 rejected recruits was compared with that of the 43 recommended on performance measures such as tenure, promotions, supervisors' ratings and senior peer ratings. No differences were found between the two groups. Although the criteria used by the psychologist and the police department differed, they were congruent for 76% of the applicants.

In spite of a few identified weaknesses, these studies suggest a great need for more in-depth and longitudinal follow-up on hired applicants who were rated as "acceptable," "marginal," and

"unacceptable" to help determine the accuracy of decisions that are made using different types of tests and predictors.

In a study similar to the present one, Borum (1991) examined the differences between applicants rated as "suitable," "marginally suitable," or "unsuitable" in screenings on the MMPI and the IPI. His study is the only one that primarily focused on "marginally suitable" candidates. Results of Borum's study showed the prediction of "suitable" applicants to be quite strong at 89.3% (MMPI = 93.7%; IPI = 92.9%). The greatest classification error was in predicting "marginal" and "unsuitable" subjects as "suitable." His findings also showed that the marginal group clearly presented the most difficult correct classification problem, however, since scores from this group were in the borderline elevation range, more heterogeneity and more difficult classification were expected. Borum concluded that psychological tests do contribute to suitability ratings for law enforcement applicants. He also indicated that this study supports the belief that test results can be a significant component in examiners' decisions regarding applicant suitability.

Subjects

A total of 538 police officers was analyzed in this study. These officers were hired by a major metropolitan police department during the period from 1987-90, after undergoing a stringent preemployment psychological exam. Two hundred and sixty-four applicants had received "acceptable" ratings and 274 applicants had received "marginal" ratings. After completing psychological screening, these applicants were scheduled to complete other stages of the background process. Many applicants from both groups were subsequently disqualified due to failing various aspects of the remaining background process (e.g., negative employment or traffic history, substantiated areas of concern, failed to keep appointments, or declined position). Consequently, the total number of police applicants hired with "acceptable" ratings was 162 and the total number hired with "marginal" ratings was 71. This population of 233 consisted of 44 White, 74 Black, and 115 Hispanic applicants. There were 191 males and 42 females.

Procedures

A Police Officer Data Sheet was developed to extract and record all pertinent background information and data on the specified job performance variables for each officer. Data were collected beginning with the officers' police academy training to the end of a five-year period for each officer. The background file of each officer was reviewed to verify the psychological rating and compile demographic information. A review was then conducted of each officer's police academy record, personnel file, and Internal Affairs' file. A causal-comparative research design was used to compare both groups on eleven performance variables: police academy performance, supervisors' evaluations, commendations, awards, reprimands, sick time, citizen complaints, time losses, reassignments, promotions, and separations. Table 1 presents the research questions, the hypotheses analyzed, and the statistical procedures that were used to conduct this study. The following is an analysis of the results on each performance variable.

Results

Police Academy. In examining police academy performance, there were no significant differences between the acceptable and marginal officers in completing the six-month training program. However, the acceptable group did have a slightly higher percentage of officers that completed the academy or voluntarily resigned, while the marginal group had a slightly higher percentage of officers recycled into a subsequent class or terminated. Further, although there were no significant differences for grade point average and supervisors' evaluation ratings, the marginal group had a higher percentage of officers (13%) with lower GPA scores compared to the acceptable group (3%). The majority of officers from each group had a B grade average, with only

4% from each group scoring an A grade average.

Supervisors' evaluation ratings while in the Academy were about equal for both groups with performances ranging from below average to above average.

Field Officer Training (FTO) Program. In reviewing performance during the Field Training Officer (FTO) Program, there were no significant differences between the groups in completing the program; both had an 85% FTO completion rate. The acceptable group had a slightly higher percentage of officers who voluntarily resigned, while both groups had similar percentages for officers extended or terminated from the FTO Program.

Additionally, there were no significant differences between the groups on mean ratings of the average and final FTO evaluations. It was noted that neither group received above satisfactory as their average rating. While both groups had similar representation (8%) in the above satisfactory category for their final rating, the acceptable group had 86% of its officers receive satisfactory ratings compared to 81% of the marginal group. Both groups incrementally increased in their performance ratings during the four-month FTO Program.

Probationary Period. In examining both groups' performance during the remainder of the probationary period, there were no significant differences in completion of probation. The acceptable group had an 82% completion compared to the marginal group's 87%. The acceptable group had 4% resignation while the marginal group had no resignations. Both groups had similar percentages of officers extended on probation. The acceptable group had a 9% termination rate by the end of the probation period compared to 7% for the marginal group.

There were also no significant differences between the groups on mean ratings of the average and final probation evaluations. The acceptable group had 92% of its officers receive satisfactory as the average rating, while the marginal group had 97%. The acceptable group had 4% of its officers receive an above satisfactory rating while the marginal group had no officers with above satisfactory rating. On the final ratings, at the end of the probationary period, a higher percentage of officers from the acceptable group received above satisfactory ratings while a higher percentage from the marginal group received satisfactory ratings. Both groups also showed a gradual increase in their evaluation ratings during the remainder of the probationary period.

Yearly Evaluations. In examining both groups' performance on yearly evaluations for a four year period, there were no significant differences in mean ratings. The acceptable group had a slightly higher percentage of officers who received above satisfactory ratings for each year except the second year. During that year, both groups performed identically. During two of the four years, the marginal group had no officers to receive below satisfactory ratings while the acceptable group had minor representation at that level for every year. Again, the mean ratings of each group increased incrementally each year.

Major Areas. Job performance in major areas consisted of comparing the groups on the frequency of awards, commendations, reprimands, citizen complaints, sick hours, and time losses. The results of *t*-tests showed no significant differences between the groups on any of these major areas. The acceptable group had slightly higher mean ratings on commendations, awards, and sick hours used. The acceptable group had 5% of officers who never used any sick time compared to 2% in the marginal group; both groups had less than 7% of officers who exceeded the acceptable range of sick hours used. The marginal group had slightly higher mean ratings on citizen complaints received. Both groups had the same mean rating for reprimands. Noted differences among the variables in the groups are probably attributable to low frequency of occurrences and fluctuations in frequency. For example, approximately 75% of the officers from both groups received between 2 to 25 commendations, approximately 20% received between 26 to 50, and less than 5% received between 51 to 70 (70 was maximum number). In another example, approximately 15% of the officers from both groups had never received any citizen complaints, approximately 80% had received between 1 to 15 complaints, and less than 5% had received between 16 to 24 complaints (24 was the maximum number).

The next measure of job performance was time loss (suspensions or forfeiture of time) from the job. Results of a chi-square procedure showed no significant differences between the groups on disciplinary actions that resulted in time losses. The acceptable group had 23% of its officers to receive time losses compared to 30% from the marginal group.

Reassignment. Reassignments into specialized units were measured based on the number of

officers from each group who had been assigned into specialized units (e.g., Robbery, Homicide, or Training) from their initial street duty, i.e., patrol. The results of a chi-square showed no significant differences between the groups. The acceptable group had 29% of its officers reassigned into specialized units compared to 36% from the marginal group.

Table 1
Data Analysis of Research Questions and Hypotheses

Research Question: Is job performance of police officers with "acceptable" psychological ratings significantly different than job performance of police officers with "marginal" psychological ratings?

Hypothesis (Ho): There is no significant difference in job performance of police officers with "acceptable" psychological ratings and police officers with "marginal" psychological ratings.

Specific Research Questions	Hypotheses	Required Data	Method	Data Analysis
Is police academy performance higher for "acceptables?"	There is no difference in academy performance	Graduate, G.P.A. & Final Ratings	Document analysis	Chi-Square Manova Mancova
Do "acceptables" perform better in the FTO Program?	There is no difference in performance in the FTO Program	Average, Final Ratings, FTO status	Document analysis	Repeated Anova Ancova Chi-Square
Do "acceptables" perform better during the Probationary period?	There is no difference in performance during Probation	Average, Final Ratings, Probation status	Document analysis	Repeated Anova Ancova Chi-Square
Do "acceptables" perform better during yearly evaluations?	There is no difference in performance during yearly evals	Yearly Ratings	Document analysis	Repeated Measures Anova Ancova
Do "acceptables" perform better in major areas?	There is no difference in performance in major areas	Comms/Reps Compls/Sick Awards Time Loss	Document analysis	T-tests Chi-Square
Do more "acceptables" get reassigned?	There is no difference in reassignments	Transfer notices	Review officers files	Chi-Square
Do more "acceptables" get promoted?	There is no difference in promos.	# ofcs promoted	Review register	Chi-Square
Do "acceptables" have fewer separations?	There is no diff. in separations	# ofcs fired/ resigned	Review officers files	Chi-Square

Promotions. Promotions were measured based on those officers from each group who were promoted within the five-year time frame. Results showed no significant differences between the groups. Only two officers, both from the acceptable group (one White, one Black), were promoted. Both were male, 21 years old, with a high school diploma when hired, single, and had no children. Also, neither officer had a college degree at the time of his promotion.

. ***Separations***. Separations were measured based on the number of officers still employed and those who had separated (resigned/terminated) by the end of their fourth year in permanent status (comprises the 5-year time frame). Results showed no significant differences between the groups. These findings are congruent with Spielberger's (1979) supposition that the clearest indication of mistakes being made in the selection process is the termination of an officer for improprieties in behavior or performance. He asserted that a distinction must be made between officers terminated and officers who resigned with satisfactory performance. This study shows that the groups were almost equal in their employment status of still employed, resigned, or terminated. Therefore, if any mistakes occurred within the selection process, both groups were equally affected. Separations for each group were identified in several areas. In the acceptable group, 6 did not complete the academy, 4 were terminated for not meeting standards during probation and 1 after probation, 5 were terminated for misconduct during probation and 2 after probation, 8 resigned (including 1 line of duty death): a total of 26 (16%) separations. In the marginal group, 3 did not complete the academy, 2 were terminated for not meeting standards during probation, 3 were terminated for misconduct during probation and 1 after probation, 1 resigned due to disability: a total of 10 (14%) separations.

Conclusions

The goal of preemployment psychological screening is to eliminate high risk applicants and those applicants who may not be able to perform the job. Applicants who are rated as marginal may or may not fit into the classification of high risk, and they may or may not be considered as being able to handle police work.

Previous research has shown the complexities involved in trying to distinguish successful and unsuccessful police performance. It has also been demonstrated that marginal ratings clearly present the most difficulty in correct classification (Borum, 1991). Fitzsimmons (1986) has indicated that the majority of good and average police applicants fall between opposite extremes of those who are superior and those who are at very high risk. Defining the line between average and high risk candidates is the difficult part of the screening process. A possible solution to this dilemma may be the combination of a comprehensive psychological exam and a very stringent background screening process. According to the Consortium of Police Psychologists (COPPS), applicants rated as marginal are considered as viable candidates as long as the areas of concern are thoroughly scrutinized during the background investigation process. These applicants are also legally employable based on standards established by the American Psychological Association (APA).

The police officers in this study were hired under a comprehensive preemployment psychological screening program that has now been in existence for several years. They were also subjected to an in-depth background investigation as reflected by the fact that 52% (282) of the applicants (538) were not hired. Theoretically, based on the very thorough initial screening procedures and other counseling services provided by the police department, performance by both groups should be about equal. As indicated by the results, there were no significant differences between the groups. In fact, on several positive job performance variables (probation completion, reassignments, separations) percentages for the marginal group were slightly more favorable than the acceptable group. Both groups showed consistent and parallel increases on all performance evaluation ratings. In summary, this study shows that the majority of the marginal officers' performance was just as good as the acceptable officers.

It must be noted that there may have been differences between the groups on some of the performance variables, but they were not detected possibly due to low variability in the performance variable, or due to small sample sizes on subgroup comparisons. The results of this

study may be generalizable to other major urban police populations with similar cultural, ethnic, and gender profiles.

Recommendations for Police Department Human Resource Programs. A number of observations were noted while conducting this investigation. Based on these observations, the following recommendations were made.

1. There were a lot of inconsistencies in the probationary evaluation ratings (beyond the FTO Program). Quite often when police officers were rated by a new sergeant, the new sergeant lowered the rating without any documented reason(s) for the decrease, e.g., reprimand, citizen complaint, late for roll call. It appeared as though the officers were being penalized for being assigned to a new sergeant. The reverse also occurred but not as often; the new sergeant increased the evaluation rating without documenting the reason for the increase, e.g., commendations, letters of appreciation, awards. The levels of productivity were the same and the written comments were basically unchanged. This finding supports previous research (Spielberger, 1979) regarding subjectivity in evaluation ratings. Decreases or increases in overall evaluation ratings should be well-documented, with specific reason(s) for them. There should be a notation that the rating was discussed with the officer, listing areas in need of improvement or areas in which improvement was noted.

2. Several officers on probation received very good evaluation ratings and praises regarding their potential to become top-notch officers, then were recommended for termination the following month. There usually was no indication of a problem on the job. The incidents they committed to cause their termination (usually Internal Affairs investigation) happened unexpectedly and apparently did not interfere with other job performance areas. This is also probably due to the lack of continuity in supervisors during the probationary period. If possible, the probationer officer should be assigned to the same squad and sergeant after completing the Field Training Officer Program. Another option would be to at least reduce the number of sergeants that the officer is assigned to. This would allow for more consistency in monitoring the officer's progress and identify potential job performance problems.

3. When evaluations were done by the same sergeant, ratings were more consistent on a monthly basis, with progressive improvement. Based on very specific comments, it was obvious that the sergeant was familiar with the officer's performance. This is similar to the previous recommendation. When there was consistency in supervisors, ratings were more constant and reflected a relationship based on familiarity between supervisor and subordinate.

4. Most of the Field Training Officers' ratings during the fourth month had the highest rating; the reasons may be due to the increased skills level of the officer, or increased effort by the officer to ensure being released from the FTO Program. No inconsistencies were noted. Very few officers were extended or recycled back into the FTO Program. The program appears to be working as it was designed.

5. Several officers sustained injuries during their probation period and were assigned to administrative functions in a "light duty" capacity. Some of those officers never returned to their Patrol assignment and some returned after completing their probation period. This area should be closely monitored to ensure that probationary officers do not "get lost" in administrative assignments and fail to develop their basic street experience.

6. Officers assigned to administrative duties in a "light" or "limited" duty status received very high evaluation ratings (usually higher than many patrol officers) even though the work being performed is not within the duties of a police officer. These officers also receive the salary of a full-duty police officer. This is an area that needs to be closely examined. For those who sustained non-duty related injuries and are assigned in a "light" or "limited" duty status, perhaps consideration should be given to assigning them to non-combat status pay for the duration of that status.

References

Borum, R. (1991). The MMPI and IPI as predictors of suitability of law enforcement applicants. Unpublished master's thesis, Florida Institute of Technology.

Fitzsimmons, E. (1986). NYPD psychological screening of police candidates: The screening process, issues and criteria in rejection. In Reese, J. T. & Goldenstein, H. A. (Ed.), A compilation of papers submitted to the National Symposium on Police Psychological Services (pp. 31-33). Washington, DC: U.S. Government Press.

Gay, L. R. (1992). Educational research competencies for analysis and application. (4th ed.). Englewood Cliffs, NJ: Macmillan Publishing Company.

Gettinger, S. (1981, March). Psychological testing of recruits can screen out the real turkeys. Police Magazine,29-40.

Inwald, R. E. (1985). Administrative, legal and ethical practices in the psychological testing of law enforcement officers. Journal of Criminal Justice, 13,367-372.

Lester, D., Babcock, S., Cassisi, J. P., & Brunetta, M. (1980). Hiring despite the psychologist's objections: An evaluation of psychological evaluations of police officers. Criminal Justice and Behavior, 7(1), 41-49.

Saxe, S. J. & Reiser, M. (1976). A comparison of three police applicant groups using the MMPI. Journal of Police Science and Administration, 4(4), 419-425.

Schoenfeld, L. S., Kobos, J. C. & Phinney, I. R. (1980). Screening police applicants: A study of reliability with the MMPI. Psychological Reports, 47, 419-425.

Spielberger, C. D. (Ed.). (1979). Police selection and evaluation: Issues and problems. New York: Praeger.

Valle-Axelberd & Capp. (1986, October). Proposal for preemployment psychological screening and counseling services. Miami, Fl.

An Analysis of the Phase Model of Burnout

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The Phase Model of Burnout provides a valid operational definition of burnout and allows determination of who is burned out and how much. Because the model covaries well with nearly 400 variables, it can be used in HRD research as a tool to determine how people feel about life in their work group and organization at any given moment, and what kinds of problems these work groups can be expected to have or not have depending on how burned out their members are. Because burnout is a work group phenomenon, it can be ameliorated by appropriate organization development and design. The model can be used by HRD practitioners in interventions to assist diagnosis, motivate remedial action, guide choices for intervention design, and measure intervention progress.

The notion of burnout has become popular in discussions and descriptions of the life of individuals, organizations, and societies. Burnout is a phenomenon that many workers experience and most workers see in someone else. It can ruin the quality of life of those who burn out and negatively affect the lives of those close to its victims.

This article is a partial literature review that describes the phase model of burnout in some detail, including the three sub-domains and phases; the power of the model in relation to other variables; and how the model can be used in human resources development.

A Theoretical Base. The entire structure and environment of an organization can be a major cause of burnout in the members of that organization. The burnout, in turn, contributes to both physical and mental illness of the individuals in the organization and those around them, and to the retardation and potential failure of the organization to achieve its mission, goals, and objectives. This theoretical base drives the need for being able to determine, why burnout happens, where and when burnout happens, and what can best be done to reduce it, so that organizations and their members can be as successful as their other characteristics and environment allow them to be.

The Maslach Burnout Inventory. The Maslach Burnout Inventory, or MBI (Maslach & Jackson, 1981a, 1986a) has some value as a tool for individual and organization analysis. The MBI has 25 items that use a Likert scale to ask about how things are at work, and how the respondent feels, at that time, about how well he or she is coping with the stresses of that environment. (See the following example.) Most people respond in 5-10 minutes.

____1. I feel emotionally drained from my work.

The phase model rests on each individual's score on each of three sub-domains. It assumes that the most virulent aspect of burnout is emotional exhaustion, more than feelings of a lack of personal accomplishment, which are both considered more virulent than depersonalization. (See Table 1.)

Table 1. MBI Sub-Domains Definitions

Sub-domain	Definition
Depersonalization	High scores distinguish those who tend to view people as things or objects, and who tend to distance themselves from others.
Personal accomplishment (reversed)	High scores identify respondents who see themselves as performing poorly on a task they evaluate as not being particularly worthwhile, and which has negative influences on coworkers.
Emotional exhaustion	High scores indicate individuals who see themselves as operating beyond their comfortable coping limits, and as approaching "the end of the rope" in psychological and emotional senses.

Note. From "Global burnout: A Worldwide Pandemic Explored By The Phase Model," page 40, by R. T. Golembiewski, R. A. Boudreau, R. Munzenrider, & H. Luo. Copyright 1996 by JAI Press Inc.

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The Phase Model of Burnout

A major problem for describing burnout as a researchable phenomenon has been the lack of a suitable operational definition (Golembiewski, personal communication, January 17, 1995). The phase model of burnout provides an operational definition different from most offered in research on stress, which usually focus on the number and severity of stressors at work. The MBI focuses on how the respondents experience stress and stressors, no matter their type, number, or severity. The phase model also accounts for the wide variety of acceptability of stress by each individual in an organization and at any given point in time. This is an important capability because the same stressors at the same time can be energizing for some individuals and enervating for others, and at different times have the opposite effects on each set of individuals, depending on their current coping skills and attitudes (Golembiewski & Boss, 1992).

The phase model of burnout has eight stages (phases) that describe an increase of virulence with each successive phase (Golembiewski & Munzenrider, 1988; Golembiewski et al, 1996). The eight phases rest on norms that differentiate each subject's scores as High or Low on the three sub-domains of the MBI in the order shown in Table 2. The research on the phase model is the testing of the phases for covariants.

Table 2: The Eight-Phase Model of Burnout

	Progressive Phases of Burnout							
Sub-domains	I	II	III	IV	V	VI	VII	VIII
Depersonalization	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi
Personal accomplishment (reversed)	Lo	Lo	Hi	Hi	Lo	Lo	Hi	Hi
Emotional exhaustion	Lo	Lo	Lo	Lo	Hi	Hi	Hi	Hi

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Progression of Phases There is no expectation that any individual will progress through every phase of the model as the level of his or her burnout increases. In fact, such a progression seems psychologically improbable. See the progressions from phase II to phase III, and phase IV to phase V to confirm this.

The phase model proposes only the progressive virulence of the phases, so that people in any phase are better off (experiencing less stress and its effects) than people in any more advanced phase. An example of this is shown in a study of nineteen physical symptoms of burnout. In Table 3, the data on all the symptoms are aggregated.

Table 3: One-Way Analysis of Variance, Total Symptoms, versus Phases of Burnout

	Phases								
	I (352)	II (109)	III (193)	IV (124)	V (107)	VI (176)	VII (109)	VIII (367)	F-Ratio (df=7, 1537)
Total symptoms	33.5	34.2	33.9	39.5	38.7	40.1	40.5	42.6	39.628*

* Indicates P < .001

Note. Figures in parentheses indicate number of respondents. From Phases of Burnout: Developments in Concepts and Applications, p. 70, by R. T. Golembiewski and R. F. Munzenrider. Copyright 1988 by Praeger Publishers.

These data show a high probability of non-random variation with the phases, and the variation is both robust and regular by pairs of phases with over 96% of pairs varying progressively.

In significant addition, the phase model encompasses two modes of onset, which is beyond the specificity of other operational definitions. Chronic onset of burnout may be indicated by a progression through phases I->II->IV->VIII as the experience of stressors accumulates over time. Acute onset of burnout, perhaps brought on by a divorce, may be indicated by progression through phases I->V->VI or VII, then finally to phase VIII. Alternative sequences, depending on one's mode of coping by sacrificing either task and/or relationships, could be through phases I->II->VI->VIII, or I->III->VII->VIII (Golembiewski & Munzenrider, 1988; Golembiewski et al, 1996).

Internal Validity of the Phase Model. Internal validity of the phase model is determined by examining whether different populations respond to the MBI with a similar cognitive structure (Golembiewski & Boss, 1992). The main population for comparison comes from a study of a federal agency that helps people. This population (N=1535) provided sufficient data for the assignment of universal norms as the dividing lines between high and low on each of the three sub-domains (Golembiewski & Munzenrider, 1988; Golembiewski, Munzenrider & Stevenson, 1986). Analysis of the responses from this population shows three factors (Golembiewski, Munzenrider & Carter, 1983). The intraclass correlation coefficient is .96, which accounts for 92% of the variance (Golembiewski & Munzenrider, 1988). Therefore, this population has been used as the target matrix for comparison with other populations. Factor analyses of many populations in the United States and around the world have generated similar structures.

External Validity of the Phase Model. Most of the research on stress and burnout have objective measures that show only weak or random association (e.g. Steffy & Jones, 1988). The tests of external validity of the phase model of burnout rest on the model's ability to covary with variables describing the quality of life in the contexts tested, blood chemistry, etc. The literature strongly shows the expected pattern on almost all of the 300+ variables studied by self-reports and the still -small panel of "objective" or "hard" variables. As the phases go, so go the other variables: deleterious outcomes increase with advancing phases; positive outcomes decrease with the progressive phases. The covariants usually "show a distinct step-ladder effect, phase by phase," meaning that they fall in a consistent and expected direction in 80-90% or more of the cases, with 30-60% of the paired-comparisons often attaining statistical significance (clearly better than the 5% expected by chance, and far beyond the association characteristic of research in the behavioral and organizational sciences), (Golembiewski & Boss, 1992, p. 125). Clearly, external validity has been achieved.

Effects of Burnout. Kim (1990) notes three aspects of the relevance of burnout to our society: concern for the health and welfare of people, costs to organizations, and the ubiquity of advanced burnout. Table 4 addresses the first two of those aspects.

Table 4: Selected Major Covariants of Burnout in 1995 Cross-National Panel

I. Higher burnout or strain tend to be associated with higher levels of:

- physical and emotional symptomologies (e.g. Cox, Kuk, & Leiter, 1993; Golembiewski, Boudreau, Goto, & Murai, 1993; Kelloway & Barling, 1991; Lin, Sun, & Golembiewski, 1996)
- spurning the assistance of people helpers (e.g. Cheku, Wong, & Rosen, 1994; Cheku & Rosen, 1994)
- uncertainty about social realities and evaluations (e.g. Buunk & Schaufeli, 1993)
- helplessness (e.g. Golembiewski, Sun, Lin, & Boudreau, 1995)
- role ambiguity (e.g. Capel, 1987)
- escape-avoidance coping (e.g. Chan & Hui, 1995; Rees & Francis, 1991)
- intent to leave employing organization (Firth, McIntee, McKeown, & Britton, 1986)
- absenteeism & turnover (Firth & Britton, 1989)
- negative emotional arousal (Kelman & Melamed, 1989; Naisburg, Fenning, & Elizur, 1995)
- cardiovascular risk factors (Appels & Schouten, 1991; Melamed, Kushir, & Shirom, 1992)
- externalization (Wilson & Chiwakata, 1989)

II. Higher burnout or strain tend to be associated with lower levels of:

- social support (e.g. Cheku, Wong, & Rosen, 1994; Winnubst, Marcelissen, & Klieber, 1988)
- autonomy (e.g. Pines, 1993)
- organizational "healthiness," as in less adequate problem-solving and task environments (e.g. Cox, Kuk, & Leiter, 1993; Pines, 1993; Dell'Erba, Rizzo, & Pancheri, 1994; McCulloch & O'Brien, 1986; Price & Spence, 1994; Van der Ploeg & Leeuwen, 1990)
- job satisfaction (e.g. Golembiewski & Luo, 1996; Dolan, 1987; Gibson, McGrath, & Reid, 1989; Iverson, Olekans, & Erwin, 1994)
- job involvement (e.g. Golembiewski, Sun, Lin, & Boudreau, 1995)
- self-rated productivity (e.g. Golembiewski, Boudreau, Goto, & Murai, 1993; Boudreau, 1996)
- job challenge (Friesen & Sarros, 1994)
- creativity (Noworol, Zarczynski, Fafrowicz, & Marek, 1993)

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- marital satisfaction (Greenglass & Burke, 1988; Greenglass, Fiskenbaum, & Burke, 1994)
- supervisory support (e.g. Greenglass & Burke, 1994)
- trust (e.g. O'Driscoll & Schubert, 1988)
- sense of psychological community (Pretty, McCarthy, & Catano, 1992)
- hardiness (Boudreau & Golembiewski, 1995)

Note. From "Global burnout: A Worldwide Pandemic Explored By The Phase Model," pages 19-20, by R. T. Golembiewski, R. A. Boudreau, R. Munzenrider, & H. Luo. Copyright 1996 by JAI Press Inc.

Other studies show covariance of the model with many more health and organizational cost variables.

The distribution of burnout is bimodal, with a North American average (N = 24,721) of 43.2% of respondents falling into the phases of least burnout, and an average of 41.5% falling into the advanced phases of burnout. The remainder, approximately 15%, falls somewhere in the middle. Burnout is not a uniquely North American phenomenon. The global averages (N = 6,692) are 27.5% in Phases I-III, 19.3% in Phases IV-V, and 53.2% in Phases VI-VIII (Golembiewski et al, 1996). Initial studies show that the Japanese work populations have the largest percentages of people in the advanced phases (Golembiewski & Boudreau, 1989; Golembiewski et al, 1996). This fact may be attributable to the Japanese culture which encourages social distancing and the high number of hours put in at work.

Adding to the problem of ubiquity of burnout is its persistence. Table 5, encompassing twelve organizations, shows substantial stability within the phases over periods of two months to three years.

Table 5: Summary of Persistence of Phases in 12 Organizations (N = 1,631)

No change	25.8-50.0%
No change, or a decrease of one phase of burnout	43.2-63.6%
Stability within the phases of least-advanced burnout	49.8-81.1%
Stability within the phases of most-advanced burnout	49.1-73.5%

Note. From "Global burnout: A Worldwide Pandemic Explored By The Phase Model," pages 173-178, by R. T. Golembiewski, R. A. Boudreau, R. Munzenrider, & H. Luo. Copyright 1996 by JAI Press Inc.

There is a strong tendency for people in the least and advanced phases of burnout to keep their phase assignments over time, while the people in the middle move toward one of the two ends. Golembiewski and Boss (1992) speculate that the movement from the middle probably occurs quickly for most people. Of course, this tendency does not hold for individuals who experience acute burnout, which may have a rapid onset and just as rapidly abate.

Uses of the MBI. Administering the MBI and applying the phase model may be useful in needs assessment, design, and evaluation in the sequence of human resources development intervention activities. While the phase model deals only with more or less, not "on" or "off," common sense tells us that people who are "burned out" may not be ready to take on more activities, especially when combined with the stress of learning new behaviors and then applying them on the job. Common sense also tells us that perhaps people should not pursue careers along paths on which burnout tends to be high without having some idea of what to do to protect themselves from the causes of burnout.

Diagnosis. Major prerequisites for success described in the organization development literature are the preparedness of a host population for an intervention and determining the appropriate depth of the intervention (e.g., Dyer, 1981; Harrison, 1971). Use of the MBI is a quick, easy way to determine the existence of organizational problems and potential entry points for detailed diagnosis and development. It can also provide insight into how individuals feel about their day-to-day existence in their organization and how ready they may be for any given human resources development intervention.

Relatedly, the phase model helps identify specific problem sources and specifics (e.g., Golembiewski, Hilles, & Daly, 1987) for matching an appropriate intervention to a diagnosis. For example, if a high proportion of IIs is discovered in a work group or population, it is clear that high levels of depersonalization are occurring. This points to the need for organization development interventions that we know can work (Golembiewski, Proehl, & Sink, 1981, 1982; Nicholas, 1982; Golembiewski & Sun, 1990; Golembiewski, 1991) to counter the depersonalization: third-party consultation, feedback designs to build organizational structures and a culture for improved interaction, team-building, etc. If a training or development intervention is planned, a high percentage of IIs calls for learning about

effective interaction and relationships. It also points to a need for learning the specific behaviors that will increase positive interaction among organization members. Because the phase assignment of members of work groups is so strongly affected by local management and conditions, a management development intervention may be needed to target the managers and supervisors of those groups with the high proportion of IIs. Such activities may include learning how to become more of a leader than a boss, listening and feedback skills, treating people like people instead of parts of a machine, and redesigning the work and coordination of group and organization members to facilitate better connection and cohesion.

If a high proportion of IIIs are found, job enrichment may be in order, along with a supportive organizational structure, practices, and systems. Again, this is an intervention that we know can usually work (e.g., Alber, 1978). The same argument can be made for IVs. For training and development interventions, learning objectives may include how to improve and implement reward systems, understanding and explaining the value of the work people are doing, and cross-training on different jobs in work units and the organization.

The same prescriptions used for IIs, IIIs, and IVs do not seem as appropriate, however, for VIs, VIIs, and VIIIs. Those in the advanced phases of burnout are more likely to lack the emotional resources and probably the skills essential for a high-stimulus intervention (Golembiewski & Kim, 1989; Golembiewski & Munzenrider, 1991a) because they are already at or beyond their abilities to cope comfortably. High-stimulus interventions would run the risk of overstimulating VIs, VIIs, and VIIIs to a point beyond that permitted by good conscience and ethics, and even possibly to the point of physical or psychological illness. Initial low-stimulus interventions, such as time off, job sharing or job rotation, increased work environment flexibility and autonomy, and performance technology and interpersonal skills learning opportunities are appropriate. Interventions typically include defusing emotional tension, increasing self-esteem, and improving their sense of efficacy. Learner self-efficacy (Mager, 1992) becomes a critical issue for these people because they are so close to being overloaded already. Training and development interventions must be designed to help decrease the stressors causing the burnout in the target audience. These may be followed by high-stimulus interventions after burnout has been reduced (Golembiewski & Boss, 1992).

Using the MBI and phase model for diagnosis may have another more esoteric value. People in advanced burnout, perhaps because of their emotional exhaustion, do not seem as aware of their burnout condition as their comrades in the less-advanced phases. Also, these people may be unmotivated or unable to take action to change their conditions, without outside intervention. As evidence of this, a pilot study of volunteers for stress management workshops shows that most were in the least-advanced phases of burnout (Golembiewski & Boss, 1992).

Motivating Remedial Action. A second use of the MBI is to provide a measured basis for assessing the necessity for taking action to improve the lives of organizational members (Golembiewski, 1987). Administering the MBI may be the first step after contracting and entry into an organization. Managers typically want 0% VIIIs; they often guess they have no more than five-ten percent of the members in their organizations in phase VIII of burnout (Golembiewski, Munzenrider & Stevenson, 1986). Most people are somewhat aghast on learning the true extent of the phenomenon on average (20+%), and particularly disturbed at the levels of burnout in their own organizations. Organizations may be more willing to commit resources and effort to human resources development interventions when they have some believable, quantified measure of the levels of burnout in their organization and its seriousness, especially when the reality of the burnout differs so far from their estimate, and especially from their ideal (Golembiewski & Boss, 1992).

The use of diagnostics of stress and burnout is getting a boost from court decisions that encourage testing as evidence of good faith (e.g., Ivancevich, Matteson, & Richards, 1985). The ability to rapidly report MBI results can make the instrument a better choice for motivating change than many of the alternatives described in the organization development literature (e.g., Golembiewski & Hilles, 1979).

Measurement of Intervention Progress. Third, the MBI provides a reusable measure of burnout over time. This may be most useful as a yardstick on the success of organization development and change (Golembiewski & Boss, 1992), but can have other applications as well. In assessing change efforts, evidence continues to grow that shows that improvement in first-order changes, such as changes in the attitudes and behaviors of those directly involved in the change efforts, can be related to reducing the phase levels of burnout (Boss, 1989). There is also evidence of the relation of the burnout phases to second-order change, such as the character and style of broader relationships (e.g.,

Golembiewski, Hilles, & Daly, 1987). There have been no studies showing evidence of the relation of burnout phases to third-order change, such as differences in the performance levels of large organization systems (Golembiewski & Boss, 1992).

In general, no data on individuals is reported, only data on the aggregate. This anticipates a possible reaction of managers to burnout data: getting rid of the individuals who are obviously (based on high phase assignments) not satisfied with their jobs, feeling low job involvement, performing poorly, suffering physically and emotionally, and worn out. Such is the strong case for anonymity for respondents!

As time and activities have progressed in interventions, however, several approaches to using individual data have been tried, based on the perceived levels of trust and the availability of resources for individual remediation in the organization. One group, for example, reports aggregate data, but allows its members to call the external intervenor to discuss personal phase assignments, assess their relation to ongoing organizational dynamics, and to discuss possible ways of coping. At other times, the group has included disclosure of personal phase assignments as part of its planning for action, perhaps to reduce stressors for individuals (Golembiewski & Boss, 1992).

Taking Action to Reduce Burnout. Golembiewski & Boss (1992) suggest three priorities for burnout reduction initiatives.

First, keep Is-IIIs in the phases of least burnout. Table 5 shows that most people assigned to these phases will stay there.

Second, try to help IVs and Vs move to IIs or IIIs, then back to Is. The same ameliorative designs with high rates of success that are available to help IIs and IIIs can also be used to help IVs. Try to help Vs by providing social support interventions.

Third, for those in the advanced phases of burnout, gather more data to determine if the respondents are in "active" or "passive" mode, then differentiate interventions based on the mode. Mode divides how people respond to burnout. Golembiewski has used a norm based on his 1984(a) study with Munzenrider of a large population that responded to a standard scale measuring job involvement (White & Ruh, 1973). They divided respondents into two categories based on the median with those above designated "active," and those below designated "passive." Different interventions are needed because passives are perceived to be less amenable to reduction in burnout, even when change in that direction has been induced among most other participants in a typical high-stimulus design (Golembiewski, Hilles, & Daly, 1987).

"Actives," even though they may be in advanced phases of burnout, are still involved emotionally in the activities of their organization, which makes them a better target for intervention than passives (Golembiewski, Hilles, & Daly, 1987). Such interventions can include gathering and sharing data about operations, conditions, relationships, and culture; contracting with organizational stakeholders for improvements in those aspects of the organization; and working on changing the organization's structure, policy, and practices to institutionalize more effective interactions and other salient aspects of the operating environment (Golembiewski & Boss, 1992). In short, this describes the classic organization development design of changes in interactions and values leading to structural reorganization to attempt to make them permanent features of the organization (Golembiewski, Hilles, & Daly, 1987). The bad news is that the number of actives decreases with each subsequent phase, with 70% of those assigned to phase I being actives, and a like percentage of those assigned to phase VIII being passives (Golembiewski and Munzenrider, 1988).

This begs the question of what causes people to be active or passives. By knowing the cause(s), perhaps interventions can be devised to move the passives to actives. Unfortunately, the answer is unknown. It may be a function of personality characteristics such as hardiness or helplessness (e.g., Garber & Seligman, 1980) shaped by either nature or nurture. It may vary with culture. One Japanese population had a very large percentage of its respondents assigned to advanced phases, but most of the population is also active based on the norm described above (Boudreau & Golembiewski, 1990; Golembiewski & Boudreau, 1989). Also not known is whether, and how long, people remain active before becoming passive in advanced phases of burnout. Freudenberger (1980) believes the period is short.

To date, only populations with 10% or less of passives have been intervention targets. While no adverse effects were reported from the interventions, the passives remained in the same phases of burnout while marked improvements were observed in others (Golembiewski, Hilles, & Daly, 1987).

Environmental Aspects of the Phase Model. In contrast to the more popular emphasis of "company culture" as the dominant fact of organizational environment (e.g., Peters & Waterman, 1982), within-organization variability has long been shown to be a stronger influence (e.g., Shils & Janowitz, 1948; Lawrence & Lorsch, 1967). The key differentiator between individuals being in the phases of least burnout or phases of advanced burnout seems to be the work group of a respondent (Golembiewski, 1983; Rountree, 1984), what Golembiewski and Boss (1992) call the "groups of first-reports." Individual work groups tend to have their members in either the phases of least burnout or in the advanced phases of burnout, but rarely in both (Golembiewski & Boss, 1992).

Conceptually, the organizational structures, policies, procedures, management, and leadership, or the lack thereof, of each work group create a common environment for the group and exercise the greatest influence on its members. This explains the relative homogeneity of phases in a work group and the commonly wide diversity in phase assignments across the parent organization.

The influence of work groups is often discounted, however, as organizations seek "magic bullet" solutions to burnout. Many organizations attempt to "inoculate" their members against the affliction by sending them to public or company-wide stress management workshops, which try to help people protect against generalized inducements of burnout. (Recall that most of the attendees at such workshops are Is-IIIs.) The workshops have some success in helping people learn stress management. The failure of the workshops is that they ignore the participants' more immediate daily environmental stressors within their work groups (Golembiewski and Boss, 1992) and organizations. Even worse, they may armor members against such forces. This would be acceptable if assignments to stress management experiences were by work group, but that is rarely the case. Golembiewski and Boss (1992) suggest that the design of each stress management workshop be geared to the phase levels of the participants, so that (for example,) Is learn what they need to learn about preventing burnout, while VIIIs learn how to begin to alleviate their burnout. Clearly this action calls for a needs assessment for each target audience, which is rarely heard of for such workshops.

Specific Organization Features Associated with the Phases of Burnout. Table 6 shows organization features arrayed against the phases of least and advanced burnout. The table reflects covariants with the phases, but does not establish causality. The few studies that attempt to establish causal linkages via direct experimental design (e.g., Golembiewski, Hilles, & Daly, 1987) or via causal modeling (e.g., Rountree, Golembiewski, & Deckard, 1989) support the highs and lows shown in Table 6, but additional causal linkage studies are needed.

Table 6: Organization Features and the Phases

Organization features associated with less advanced phases	Organization features associated with most advanced phases
High participation in decisions at work	Low participation in decisions at work
High job involvement	Low job involvement
High satisfaction with most or all facets of work	Low satisfaction with most or all facets of work
High sense of psychological community: high cohesiveness of primary work group, high social and emotional support from supervisor and coworkers	Low sense of psychological community: low cohesiveness of primary work group, low social and emotional support from supervisor and coworkers
High trust in all levels	Low trust in all levels
High need satisfaction in job	Low need satisfaction in job
Low job tension	High job tension
High clarity about job requirements	Low clarity about job requirements
1-to-many or group-oriented supervision	1-to-1 supervision
High orientation to getting task done	Low shared orientation to getting task done
Low work pressure	High work pressure
Open interaction and cultures	Closed interaction and cultures

Note. From "Phases of Burnout in Diagnosis and Intervention: Individual Level of Analysis in Organization Development and Change," by R. T. Golembiewski and R. W. Boss, 1992, Research in Organizational Change and Development, 6, p. 145. Copyright 1992 by JAI Press, Inc.

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Implications for Human Resource Development

The field of human resource development now has the phase model as an additional measurement tool to help its practitioners and researchers determine an important aspect of any organization at any moment, and repeatedly if desired. The phase model can provide data on which to base the suitability of an intervention, as well as its type, depth, organization and individual targets, and success over time. It provides data that allow the proposal of people-centered actions to improve organization function, rather than organization-centered or mechanistic actions. Research using the phase model has identified likely individual and organization symptoms and the potential costs to the organization for not intervening. These costs may motivate leaders to approve an HRD intervention because the burnout is very likely to appear to be much higher than desired in almost all mid-sized organizations or larger. The phase model aims at all three levelsof organization, individual, work group, and organization, where HRD can be effective. Finally, for practitioners, it can help explain why interventions not indicated by the data are not likely to work.

For HRD researchers, a new way of looking at organizations is available. Using the phase model as an inquiry tool may allow further and deeper scrutiny of conditions in organizations, and the effectiveness of improvement actions at any given time. There is still a vast opportunity to use this tool to examine consequences of work features, change, and the relationships among work elements.

Of additional great benefit to all users of the phase model is its low cost, speed of use, and richness of results. As shown above, there is much to commend the use of the phase model of burnout in human resource development.

Partial List of References

Golembiewski, R. T., & Boss, R. W. (1992). Phases of burnout in diagnosis and intervention: Individual level of analysis in organization development and change. Research in Organizational Change and Development, 6, 115-152.

Golembiewski, R. T., Boudreau, R. A., Munzenrider, R. & Luo, H. (1996). Global burnout: A worldwide pandemic explored by the phase model. Greenwich, CT: JAI Press Inc.

*Golembiewski, R. T., Hilles, R. & Daly, R. (1987). Some effects of multiple OD interventions on burnout and work site features. The Journal of Applied Behavioral Science, 23, 295-313.

Golembiewski, R. T., & Munzenrider, R. (1988). Phases of burnout: Developments in concepts and applications. New York: Praeger.

Golembiewski, R. T., & Munzenrider, R. (1984a). Active and passive reactions to psychological burnout. Journal of Health and Human Resources Administration, 7, 264-289.

Golembiewski, R. T., Munzenrider, R. & Stephenson, J. G. (1986). Stress in organizations. New York: Praeger.

Lubin, B., Robinson, A. J., & Sailors, J. R. (1992). Burnout in organizations: A bibliography of the literature, 1980 through 1991. Organization Development Journal, 10(2), 66-90.

Maslach C., & Jackson, S. E. (1986a). Maslach burnout inventory (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.

Rountree, B. H., Golembiewski, R. T., & Deckard, G. J. (1989). A causal path analysis of burnout and agitation. Journal of Health and Human Resources Administration, 12, 95-111.

White, J. K., & Ruh, R. A. (1973). Effects of personal values on the relationships between participation and job attitudes. Administrative Science Quarterly, 18, 506-514.

Winnubst, J. A. M., Marcelissen, F. H. G., & Klieber, R. J. (1982). Effects of social support in the stressor-strain relationship: A Dutch sample. Social Science & Medicine, 16, 451-457.

Zahn, J. (1980). Burnout in adult educators. Lifelong Learning, 4, 4-6.

* This is the best and most complete work on the phase model of burnout. It includes a complete list of references.

Note. A complete list of references is available from the author.

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